k-Difference Distance Magic Oriented Graphs

Alison Marr

Department of Mathematics & Computer Science
Southwestern University, USA

This talk will discuss a new graph labeling on oriented graphs called k-difference distance magic (k-DDM), where the vertices of an oriented graph are labeled with the set of consecutive positive integers starting at 1, such that the sum of the vertex labels of the in-neighborhood minus the sum of the vertex labels of the out-neighborhood is equal to the magic constant k at each vertex. This talk will mainly focus on 0-difference distance magic oriented graphs. We will discuss the basic properties of graphs with 0-DDM labelings, as well as proven constructions (or lack thereof) for several classes of oriented graphs.

marra@southwestern.edu